

Amendment under 37 CFR 1.111
Application No.: 10/538,654
January 11, 2008

IN THE CLAIMS

Please substitute the following claims for the pending claims with the same numbers respectively:

Claims 1-22: (Cancelled):

Claim 23 (Original): A process of preparing a template type substrate which comprises steps of:

(a) preparing a layer A) of bulk mono-crystal nitride containing at least one element of alkali metals (Group I, IUPAC 1989) to have a thickness for substrate by crystallization of gallium or aluminum-containing nitride on a seed from a super-critical ammonia-containing solution, and (b) forming a layer B) of nitride by means of vapor phase epitaxy growth on Al or Ga-polar face of the layer A) to get a substrate comprising the layer A) and the layer B) combined at Al or Ga-polar face of the layer A) and N-polar face of the layer B).

Claim 24 (Original): A process of preparing a template type substrate according to claim 23, which comprises further step of (c) polishing one of the faces of the layer B) to get a substrate for vapor phase epitaxy.

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Claim 25 (Original): A process of preparing a template type substrate according to claim 24, which comprises further step of annealing the substrate comprising the layers A) and B) in the atmosphere that does not contain hydrogen but does contain oxygen at temperature between approx. 600 and 1050°C, thus producing material with better crystalline quality than before the annealing.

Claim 26 (Original): A process of preparing a template type substrate according to claim 25, wherein the step of annealing is carried out in the atmosphere of inert gas with an addition of oxygen between 10 and 30 vol.%.

Claim 27 (Previously presented): A process of preparing a template type substrate according to claim 26, wherein the step of annealing is carried out in a single step or in multiple steps until the desired level of impurities (such as hydrogen and/or ammonia or ions formed from the impurities formed during the crystallization and/or annealing process) is reached.

Claim 28 (Original): A process of preparing a template type substrate according to claim 25, which comprises further step of

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removing impurities from bulk mono-crystalline nitride by a process of rinsing in the environment of supercritical ammonia-containing solvent, water or carbon dioxide or being subjected to the action of gaseous hydrogen, nitrogen or ammonia.

Claim 29 (Original): A process of preparing a template type substrate according to claim 23, wherein the step of rinsing is carried out with aid of the application of ultrasounds or the exposure to an electron beam.